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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,395	07/16/2003	Yibing Zhao	Analog.7042	9544

55740 7590 12/28/2005

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EXAMINER	
TRAN, ANH Q	

ART UNIT	PAPER NUMBER
2819	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/620,395	ZHAO ET AL.	
	Examiner	Art Unit	
	Anh Q. Tran	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10-17,19-34,38-42,45 and 46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8,10-17,19-34,38-42,45 and 46* is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/20/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 7 are rejected under 35 U.S.C. 102(b) as being by Hamada et al. (6,373,291).

1. Hamada shows: A switch comprising:

a plurality of field effect transistors (PMO and NMO, .Fig. 4) connected in series, each field effect transistor including a gate, a source, and a drain, each gate having a gate width and a gate length;

said gate length of one of said series connected field effect transistors being a different size from said gate length of another series connected field effect transistor (col. 8, lines 9-14).

2. The switch as claimed in claim 1 , wherein said gate of one of said plurality of series connected field effect transistor has a longer gate length (LPMO is twice LNMO, (col. 8, lines 9-14) than said gate of said other series connected field effect transistor.

7. The switch as claimed in claim 1, wherein the different gate sizes increase a parasitic capacitance within the switch.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al (6,373,291).

Hamada discloses the claimed invention except for:

-wherein said gate of one of said plurality of series connected field effect transistor has a distance to its drain port that is less than a distance to its source pod.

-wherein said gate of one of said plurality of series connected field effect transistor has a distance to its source port that is less than a distance to its drain pod.

-wherein said gate of said other series connected field effect transistor has a distance to its source port that ié equal to a distance to its drain port.

-wherein said gate of said other series connected field effect transistor has a distance to its source port that is equal to a distance to its drain port.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust

-the gate of one of the plurality of series connected field effect transistor has a distance to its drain port that is less than a distance to its source port.

-the gate of one of the plurality of series connected field effect transistor has a distance to its source port that is less than a distance to its drain pod.

-the gate of the other series connected field effect transistor has a distance to its source pod that is equal to a distance to its drain port.

-the gate of the other series connected field effect transistor has a distance to its source port that is equal to a distance to its drain port, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art.

Allowable Subject Matter

5. Claims 8, 10-17, 19-34, 38-42, 45-46 allowed.

6. The following is an examiner's statement of reasons for allowance: although the prior art of record discloses a dual-gate having different gate width from the other, with respect to claims 8, 17, 19, 22, 34, and 39, in addition to other limitations in the claims, the prior art of record fails to teach, disclose, or render obvious the applicant's invention as claimed, particularly the feature describing:

-the modified gate having a length that is of a different size from the gate lengths of other series connected dual-gate field effect transistors.

-a heavily doped cap layer fabricated upon the transistor connection segment between the gate fingers.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

7. Applicant's arguments filed 10/14/05 have been fully considered but they are not persuasive. Applicant argues that "Hamanda et al. is silent as to the actual relationship between the gate lengths, it is improper to conclude". Hamanda discloses the actual relationship between the gate lengths with inequality equation: ((Wpmo/Lpmo) >2x (Wnmo/Lnmo) at column 8, lines 9-14. The gate length of the transistors (PM0 and NN0, Fig. 4) can be modify to satisfy the inequality equation above. Therefore, Hamanda does teaches the relationship between the gate lengths.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

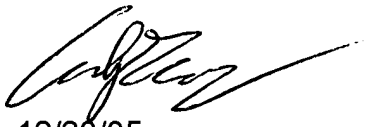
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Q. Tran whose telephone number is 571-272-1813. The examiner can normally be reached on M-F (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on 7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANH Q. TRAN
PRIMARY EXAMINER



12/20/05